VISES
PUMPS

THE FULTON MACHINE & VISE CO.

LOWVILLE, N.Y. U.S.A.

SURPLESS, DUNN & CO.
SALES REPRESENTATIVES
74-76 Murray St. 152 East Lake St.
NEW YORK AND CHICAGO

THIS CATALOGUE SUPERSEDES ALL FORMER ISSUES

DESTROY OLD CATALOGUE

1912

STAR VISES

PEERLESS VISES

F & R VISES

FULTON VISES

CENTRIFUGAL PUMPS

PULP STONE TRUING LATHES

CORE PUNCHES

DEER RIVER PLOWS, ETC.

Fulton Machine & Vise Co.

LOWVILLE, N. Y.

74-76 Murray Street
NEW YORK

162 East Lake Street
CHICAGO, ILL.

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INTRODUCTORY

WITH an unbroken record for superiority of product since incorporation, we offer our Catalog for 1912 with the assurance that the present high standard of our goods will be maintained and that our service will be more prompt and efficient, due to our improved methods of manufacturing and increased facilities.

Our business has been under the same management from the beginning. Our endeavor has always been to put the best materials procurable into our goods, to employ the most experienced workmen, and to utilize the most modern machinery. To this policy we attribute our success in establishing a trade of considerable magnitude. Our facilities enable us to promptly execute all orders or contracts for supplying vises or pumps of any size or number, and our works contain the most up-to-date machines for the manufacture of them.

FULTON MACHINE & VISE CO.

TO THE TRADE

ALL previous price lists and trade circulars are superseded by this 1912 catalog.

Quotations are subject to change without notice but we will do our utmost to advise the trade of such changes.

All orders accepted and all agreements or contracts are contingent upon strikes, fires, accidents or causes beyond our control.

Goods delivered to carriers in good order, and so receipted for, releases us from further responsibility.

Defective goods will be replaced or credited at invoice price.

Claims for shortage or deductions must be made within 10 days of receipt of goods.

Goods cannot be returned unless by special arrangement and then subject to discount and expense.

Special order work is not subject to cancellation after once under way.

GUARANTY

We expressly agree to repair or replace, free of charge, any of our goods we sell which shall at any time be found to have been defective in workmanship or material. We are able to give this unqualified guaranty, and cheerfully do so, solely because we have perfected our product through many years' experience, because we put into them only the best materials to be had, and because our large force of employees have become experts in their line of work and are held to the strictest accountability for the proper execution of their individual share in the making of our goods.

OUR EXPERIENCE

WE have been making vises and pumps for a number of years, and today our goods embody all the improvements suggested by years of actual use under every imaginable condition. We make a specialty of vises and are the only concern doing so. We own our Foundry and machine shop and construct the entire vise ourselves. Almost without exception our competitors in the vise business hire their vises made or buy their castings from other concerns. We are therefore in position to save you one profit, furnish better finished vises and we know absolutely that our vises are all we claim for them. They can be found in constant use in many of the leading industrial plants and railroad shops of the United States and Canada. This of itself constitutes the best sort of a guarantee that our vises are all that we claim for them.

MATERIAL AND WORKMANSHIP

The illustrations in this catalogue show the construction of our different vises and machines which are made of the very best quality of material. Nothing is spared in their construction to make them strong and lasting.

AS TO PRICE

Our vises and pumps are offered as the cheapest in the market, efficiency and durability considered, though not

necessarily the lowest in price. It is not to be expected that we can afford to sell such substantial and perfectly constructed goods as we produce at the same price as is asked for poorly-constructed and flimsy imitations made by persons who are attempting to trade on our reputation. Prudent buyers, however, are hardly likely to consider a small difference in price, a bar to the purchase of an article that will last longer, backed up by our established reputation and the guaranty which we furnish. In comparing our prices with those of other makers, careful note should be made of the material used in construction, finish and strength. Our vises are relatively stronger than competing makes. That we have been able to establish a trade that is world-wide, and to constantly increase our sales and our repeat orders year by year, proves that our prices are reasonable and the goods satisfactory.

THIRTY DAYS' TRIAL

We offer to send one or more of our vises to any responsible house on 30 days' trial, subject to approval in every respect. If it is found upon trial that our vises fail to meet every claim which we make for them in this catalogue and guaranty, they may be returned, and we will pay freight charges both ways. This trial is free from expense in every way, so that any one who desires to test our goods will run no risk whatever in accepting this proposition. We are also willing to send our vises on trial in competition with any other make, the customer to be the judge as to which make will best suit his requirements.

FULTON MACHINE & VISE CO.

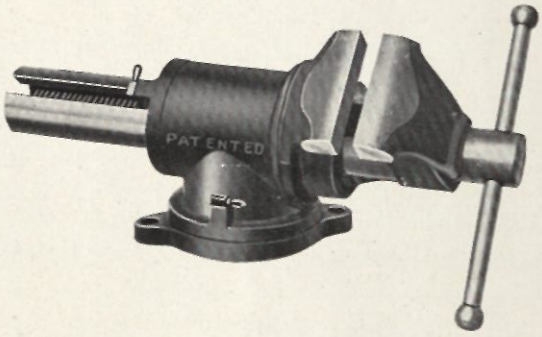
VISES

IN the manufacture of vises we aim to produce nothing but a high class article, combining strength and finish. All our vises have welded cast steel faced jaws.

Several brands of vises are on the market with renewable or removable cast steel face which is claimed to be a favorable feature of the vise. Such vises do not and cannot possess the strength of a vise REINFORCED with cast steel properly welded to the casting.

To insert a removable steel the casting must be cut away and whether fastened with screws or pins gives no added strength to the vise.

We also call attention to the fact that the face of a good vise jaw DOES NOT WEAR OUT or need renewing and should the corrugations wear smooth and the jaws fail to grip the work before the life of the vise is gone (which our experience has not proven to be the case) the same can be re-cut for practically the same expense as the cost of a new set of removable steels.



"F. & R." PATENT VISE

Machinists Pattern
Cast Steel Faced Jaws, Tempered

This vise has the advantage of two complete swivels, a combination of the two giving the most desirable positions for the use of a mechanic.

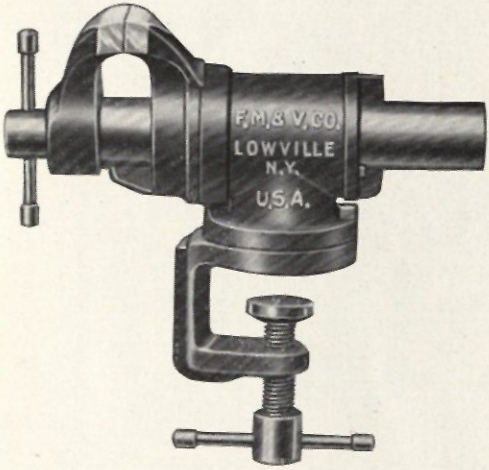
The vise is locked at any angle by two separate methods. One by clamping the work within the jaws which tightens the frictions and the other by the use of the position pins. With both in use the vise is POSITIVELY locked in any position. **The jaws of the F. & R. vise are always held in place when work is removed by the position pins,** if the operator requires, by the use of which the vise is made **stationary** at any angle.

PRICE LIST

Always use numbers when ordering

No.	***2**	Jaws 2	in.	Opens 2	in.	Wgt.	6½	lbs.	Price	$ 4 00
No.	**3**	Jaws 3½	in.	Opens 5	in.	Wgt.	37	lbs.	Price	9 50
No.	**4**	Jaws 4	in.	Opens 5⅜	in.	Wgt.	56	lbs.	Price	11 75
No.	**5**	Jaws 4½	in.	Opens 6½	in.	Wgt.	70	lbs.	Price	14 00
No.	**6**	Jaws 5	in.	Opens 7	in.	Wgt.	89	lbs.	Price	21 50
No.	**7**	Jaws 6	in.	Opens 9	in.	Wgt.	155	lbs.	Price	31 00

*Note—No. 2 Vises have no pins or position stops.



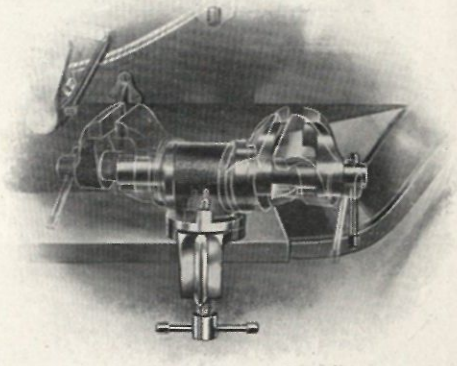
"F. & R." AUTO AND MOTOR BOAT VISE

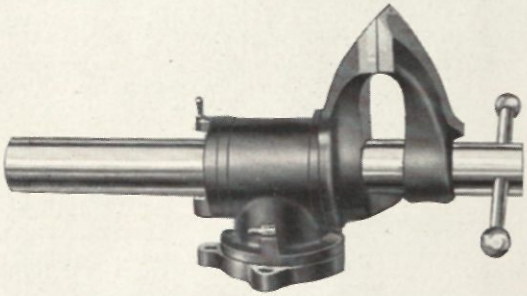
Width of Jaws 2 in.
Open 2 in.
Weight 7½ lbs.

PRICE LIST

Painted, Jaws and Finished Parts Plain	$ 8 50
Painted, Jaws and Finished Parts Nickeled	10 00

Ready
For
Business





"F. & R." PATENT VISE

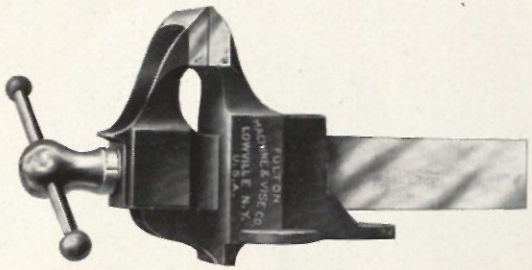
Coachmakers Pattern

Cast Steel Faced Jaws

PRICE LIST

No. 8 Jaws 4½ in. Opens 9 in. Wgt. 64 lbs. Price $14 50

The "F. & R." vise with its combination swivel makes the perfect **Filer's** and **Toolmaker's Vise,** as well as general **Machinist's Vise,** as the jaws can be tipped to or from the mechanic.

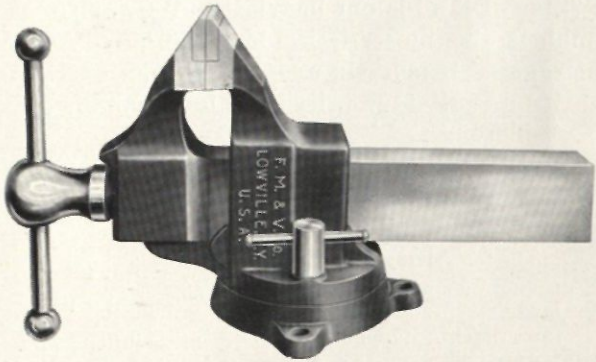


"STAR" COACHMAKER'S VISES

Cast Steel Faced Jaws

Solid Base

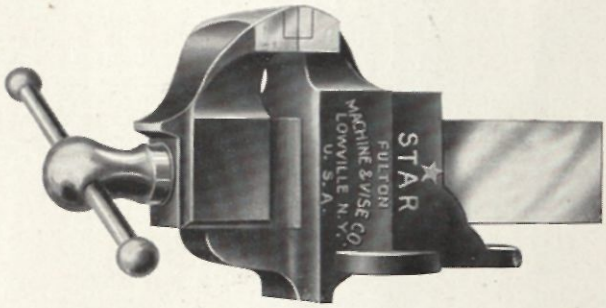
No. 14 Jaws 4¼ in. Opens 9 in. Wgt. 48 lbs. Price **$9 50**



Swivel Base

PRICE LIST

No. 18 Jaws 4¼ in. Opens 9 in. Wgt. 58 lbs. Price **$11 50**



"STAR"

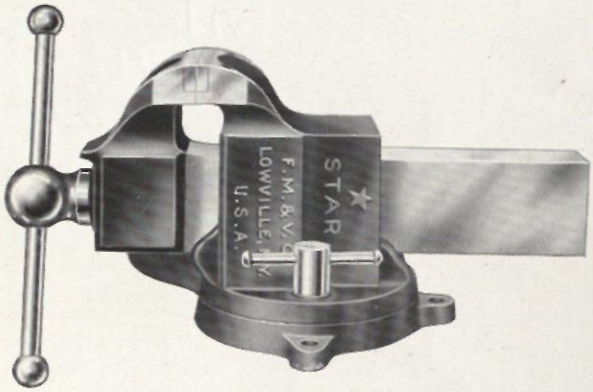
Parallel Machinists Vise. Cast Steel Faced Jaws. Solid Base

Our "Star" Brand is our heaviest pattern, strongest vise and combines the most desirable features of the several types of regular bench vises. Our guarantee is stronger than the strongest. Our prices are lower than the lowest, quality considered.

PRICE LIST

Always Order by Number

No. 825	Jaws 2½	in.	Opens	3½	in.	Wgt.	17 lbs.	Price	$4	75
No. 8½	Jaws 3	in.	Opens	4	in.	Wgt.	20 lbs.	Price	$ 6	00
No. 9	Jaws 3½	in.	Opens	5½	in.	Wgt.	28 lbs.	Price	7	00
No. 10	Jaws 4	in.	Opens	6	in.	Wgt.	42 lbs.	Price	8	50
No. 11	Jaws 4½	in.	Opens	7	in.	Wgt.	54 lbs.	Price	10	00
No. 12	Jaws 5	in.	Opens	8	in.	Wgt.	72 lbs.	Price	13	00
No. 13	Jaws 6	in.	Opens	10	in.	Wgt.	135 lbs.	Price	25	00



"STAR"

Parallel Jaw, Machinists Vise

Swivel Base

Cast Steel Faced, Tempered Jaws

This vise can be swiveled to any desired position.

The base is locked by a taper head bolt, which locks it as firmly as the jaws are locked.

These Vises cannot wobble or chatter when in use, as the bolt takes up all lost motion.

Our guarantee is stronger than the strongest. Our prices are lower than the lowest, quality considered.

PRICE LIST

No. 1825	Jaws 2½	in.	Opens 3½	in.	Wgt. 20 lbs.	Price	$5 20
No. 18½	Jaws 3	in.	Opens 4	in.	Wgt. 28 lbs.	Price	$ 7 50
No. 19	Jaws 3½	in.	Opens 5½	in.	Wgt. 36 lbs.	Price	8 75
No. 20	Jaws 4	in.	Opens 6	in.	Wgt. 50 lbs.	Price	10 50
No. 21	Jaws 4½	in.	Opens 7	in.	Wgt. 64 lbs.	Price	12 50
No. 22	Jaws 5	in.	Opens 8	in.	Wgt. 82 lbs.	Price	16 00
No. 23	Jaws 6	in.	Opens 10	in.	Wgt. 153 lbs.	Price	30 00

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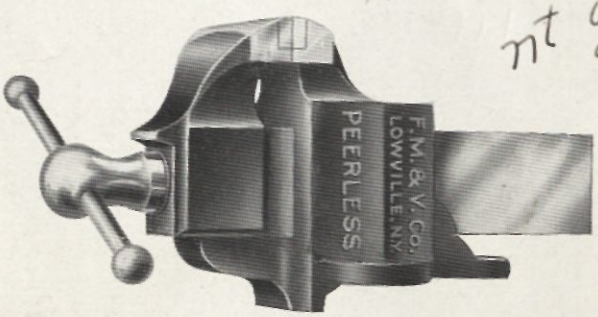


"PEERLESS"

Solid Base Machinist's Vises

Cast Steel Faced Jaws

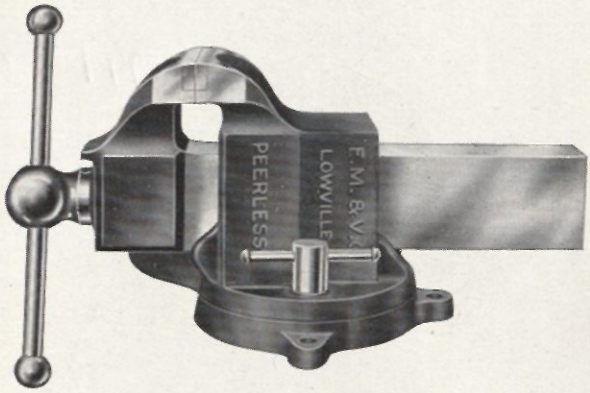
The Best Vises for the Money in America Barring None

The consumer gets more Vise for his money in the Peerless line than any other Vise now on the market. **We say this without fear of contradiction. See explanation on next page.**

Peerless cannot be matched—a dependable Vise, at an exceptionally low price.

PRICE LIST

No. 25	Jaws 3½	in.	Opens 4	in.	Wgt. 22 lbs.	Price	$ 6 00		
No. 26	Jaws 4	in.	Opens 5½	in.	Wgt. 28 lbs.	Price	~~7 00~~	8.50	
No. 27	Jaws 4½	in.	Opens 6	in.	Wgt. 42 lbs.	Price	8 50		
No. 28	Jaws 5	in.	Opens 7	in.	Wgt. 52 lbs.	Price	~~10 00~~	13.00	
No. 29	Jaws 5½	in.	Opens 8	in.	Wgt. 72 lbs.	Price	13 00		



"PEERLESS"

Swivel Base Machinists Vises

Cast Steel Faced Jaws

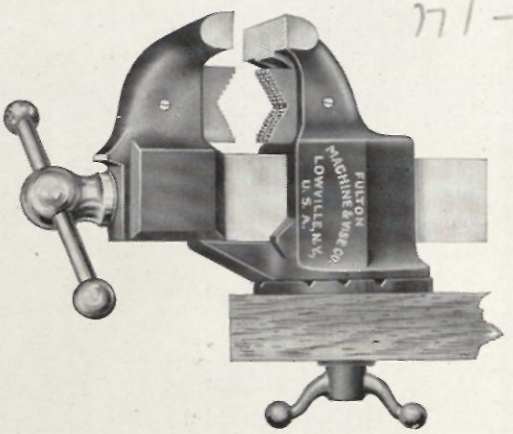
The "Peerless" Brand is the same in every respect, finish, material and construction as the "Star," except that you have a **lighter weight vise.**

As an example: Our No. 19 "Star" Vise has a 3½ inch face jaw; the No. 31 "Peerless" is the same vise with a 4 inch jaw.

Where the class of work is not too severe, such as filing, etc., a "Peerless" vise will answer every purpose and save cost as we practically furnish a 4 inch vise at the price of a 3½ inch.

PRICE LIST

No. 30	Jaws 3½	in.	Opens 4	in.	Wgt. 28	lbs.	Price	$ ~~7 50~~	8 75
No. 31	Jaws 4	in.	Opens 5½	in.	Wgt. 36	lbs.	Price	~~8 75~~	10.50
No. 32	Jaws 4½	in.	Opens 6	in.	Wgt. 52	lbs.	Price	~~10 50~~	12.50
No. 33	Jaws 5	in.	Opens 7	in.	Wgt. 64	lbs.	Price	~~12 50~~	16.00
No. 34	Jaws 5½	in.	Opens 8	in.	Wgt. 85	lbs.	Price	16 00	



"FULTON"

Combination Pipe Vise

Tempered Cast Steel Faced Jaws

This vise has ample weight and strength and is fitted with removable pipe jaws. These jaws are made of a special grade of steel and will give maximum service.

PRICE LIST

No. 15	Jaws 3⅝ in.	Wgt. 50 lbs.	Cap. ⅛-2 in.	Price	**$16 00**
No. 16	Jaws 4¼ in.	Wgt. 72 lbs.	Cap. ⅛-3 in.	Price	**20 00**
No. 17	Jaw 5 in.	Wgt. 125 lbs.	Cap. ½-4 in.	Price	**28 00**

PRICE LIST OF EXTRAS
VISES ONLY

Number	Front Jaw	Back Jaw	Screw and Lever	Saddle	Swivel Base	Nut	Friction Block	Pipe Jaws per set
*2	$2 00	$1 50	$1 00	$2 00	$1 00	$ 60	$ 60	.....
3	3 00	3 00	1 25	2 75	2 25	1 00	75	.....
4	3 75	3 75	1 50	3 25	3 00	1 25	1 00	.....
5	4 00	4 00	1 75	3 75	3 60	1 40	1 10	.....
6	6 00	6 00	2 25	4 00	3 75	1 50	1 25	.....
7	8 00	8 00	3 50	5 25	4 00	1 75	1 40	.....
8	4 50	4 50	1 75	3 75	3 60	1 40	1 10	.....
8½	2 00	1 50	1 00	.....	.....	40	.....	.....
9	2 50	2 50	1 25	.....	.....	40	.....	.....
10	3 00	3 00	1 50	.....	.....	60	.....	.....
11	3 50	3 50	1 75	.....	.....	60	.....	.....
12	5 00	5 00	2 00	.....	.....	75	.....	.....
13	8 00	8 00	3 00	.....	.....	1 00	.....	.....
14	3 50	3 50	1 50	.....	.....	60	.....	.....
15	3 00	3 00	1 25	.....	1 00	40	.....	$1 00
16	4 50	4 50	1 50	.....	1 25	50	.....	1 25
17	6 50	6 50	2 00	.....	1 50	60	.....	1 50
18	3 00	3 25	1 50	.....	1 50	60	.....	.....
18½	2 00	1 50	1 00	.....	1 00	40	.....	.....
19	1 75	2 50	1 25	.....	1 25	40	.....	.....
20	2 50	3 00	1 50	.....	1 50	60	.....	.....
21	3 25	3 50	1 50	.....	1 75	60	.....	.....
22	4 50	5 00	1 75	.....	2 00	75	.....	.....
23	7 50	8 00	3 00	.....	4 00	1 00	.....	.....
25	1 50	2 00	1 00	.....	.....	40	.....	.....
26	1 75	2 50	1 25	.....	.....	40	.....	.....
27	2 50	3 00	1 50	.....	.....	60	.....	.....
28	3 25	3 50	1 50	.....	.....	60	.....	.....
29	4 50	5 00	1 75	.....	.....	75	.....	.....
30	1 50	2 00	1 00	.....	1 00	40	.....	.....
31	1 75	2 50	1 25	.....	1 25	40	.....	.....
32	2 50	3 00	1 50	.....	1 50	60	.....	.....
33	3 25	3 50	1 50	.....	1 75	60	.....	.....
34	4 50	5 00	1 75	.....	2 00	75	.....	.....

*AUTO AND MOTOR BOAT VISE—EXTRAS SAME AS NUMBER 2

CENTRIFUGAL PUMPS

OUR type of Centrifugal Pumps has been used for many years. The designs of our present centrifugals are the result of what long experience has taught us, represents the best construction for a pump of this type.

All our pumps are carefully inspected and tested at eighty pounds water pressure before shipment.

SPECIAL uses of the Centrifugal Pump are, aside from its superior merits for general pumping in any location where the pump can be placed close to the water supply, as a pump for Irrigation, Sewage, Reclamation, Water Supply, Wrecking, Excavating, Caissons, Dry Docks, Pulp and Paper Mills, Mine Station, and Sinking Pumps, Surface Condensers, Fire and Underwriters' Pumps and Chemical Plants.

The Centrifugal Pump is adapted for any installation when mounted either horizontally or vertically, the pump should be placed not more than 20 feet above water supply. Under proper conditions this pump has developed very high efficiencies.

We maintain that in any location adapted for the installation of a plain centrifugal where all costs for a period of years are included, a well designed pump of this type will prove more economical than any other pump made at the present time.

We claim for our pump strength, simplicity, free running bearings, easy access to stuffing box, split glands, which are easily re-babbitted when worn, ring oiling bearings, best of material throughout and economy of power.

When bolting pump to foundation be careful not to spring the frame. If you do the pump will run hard and the bearings will heat.

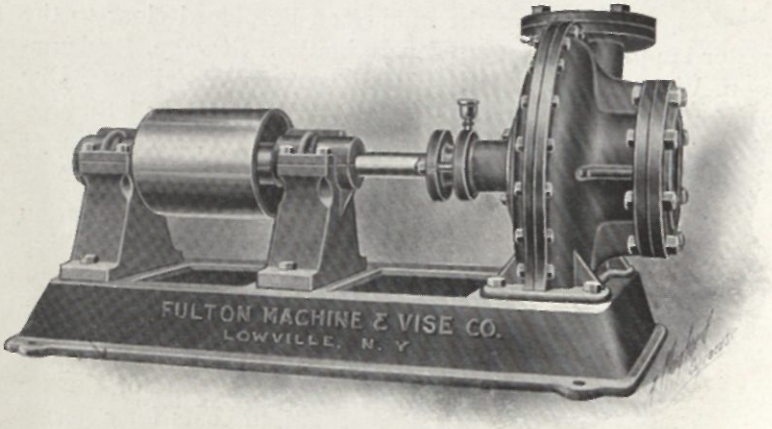
Be sure the suction pipe is absolutely air tight.

Be sure to run the pump in the right direction.

Use only long sweep elbows and use as few as possible.

Set pump as near the water as possible.

See page 33 for further information.



RIGHT HAND

STANDARD HORIZONTAL PUMP

We Make these Pumps Right or Left

For Sizes and Prices See Next Page

This is the type of pump most extensively used for all purposes. All our pumps are fitted with ring oiling bearings except the number one.

We carry a large stock at all times and are prepared to make prompt shipments.

We always ship right-hand pumps unless otherwise specified.

Table of speeds page 25.

See note bottom page 23.

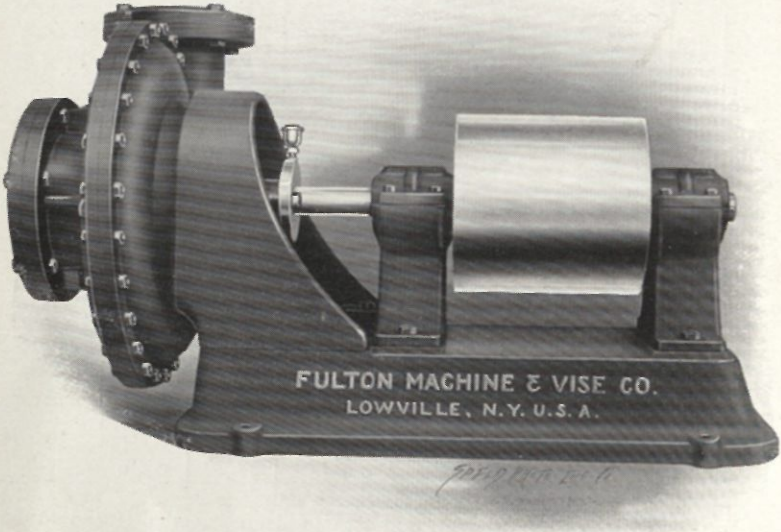
PRICE LIST

STANDARD HORIZONTAL PUMPS

Diameter Discharge Opening	Suction Flange	Economical Capacity in Gallons per Minute	H. P. for each foot lift	Pulley		Weight	Floor Space Required Over All	Code Word (Iron)	Code Word (Brass)
				Diam.	Face				
1	1¼	35	.15	3	3	50	12x14	Ware	Orb
1½	2	75	.03	5	5	120	15x23	Wad	One
2	2	90	.04	5	5	120	15x23	Wife	Oft
2	2½	140	.05	6	6	170	17x27	Walk	Once
2½	3	180	.085	6	6	190	18x28	Wall	Ore
3	4	260	.126	8	8	400	23x36	Wand	Ox
4	5	475	.2	8	8	435	24x42	War	Oat
5	6	755	.26	10	10	650	29x48	Ward	Old
6	8	1,200	.53	12	12	725	30x50	Wasp	Oak
8	10	2,000	1 40	14	14	1,200	37x56	Wax	
10	12	3,000	1.90	18	16	1,600	38x58	Web	
12	14	4,200	2.30	18	16	2,100	48x60	West	
15	18	8,000	4.40	20	18	4,500	56x70	Well	

We furnish these pumps with outlet same size as suction if desired

No.	Price (Iron)	Price (Brass)	Primer Extra	Foot Valve Extra	Brass Foot Valves
1	$ 30 00	$ 55 00			
1½	35 00	65 00	$15 00	$ 5 00	$ 8 00
1¾	50 00	80 00	15 00	6 00	8 50
2	70 00	125 00	20 00	7 00	9 00
2½	80 00	150 00	20 00	8 00	12 00
3	110 00	175 00	25 00	9 00	15 00
4	130 00	275 00	30 00	12 00	21 00
5	165 00	350 00	40 00	15 00	26 00
6	200 00	410 00	45 00	20 00	30 00
8	310 00	.....	65 00	30 00	40 00
10	395 00	.....	75 00	40 00	50 00
12	500 00	.....	.....	50 00	65 00
15	700 00	.....	.....	75 00	110 00



LEFT HAND

SWING CASE PUMP

We Make these Pumps Right or Left

For Sizes and Prices see next Page

This type of pump can be placed so that the outlet will discharge at any point of the circle. This advantage will oftentimes save an elbow and consequent friction which saves power.

Fitted with ring oiling bearings, split glands and generous size shafts.

Table of speeds page 25.

PRICE LIST

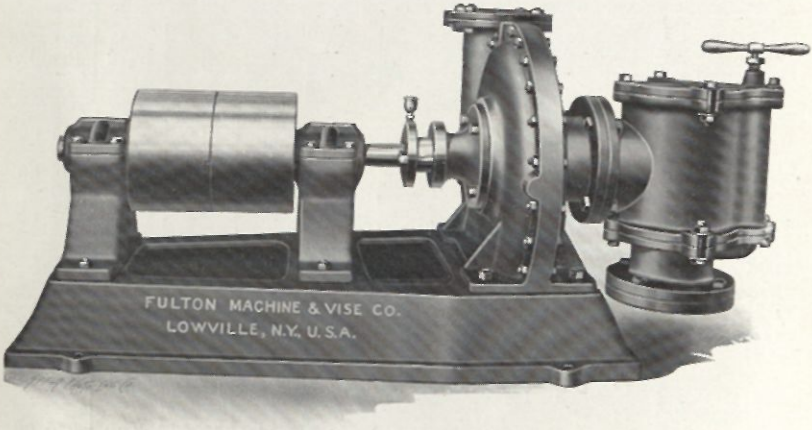
Swing Case Pump

No.	Suction	Dis.	Capacity	H. P. for each ft. lift	Pulley		Weight	Code Word	Price (Iron)
					Diam.	Face			
1½	2	1½	75 to 100	.03	5	5	135	Yak	$ 45 00
2	2½	2	145 to 165	.05	6	6	195	Yaw	85 00
2½	3	2½	180 to 250	.085	6	6	300	Yawl	95 00
3	4	3	250 to 350	.126	8	8	400	Yeast	110 00
4	5	4	475 to 600	.2	8	8	425	Yelp	135 00
5	6	5	755 to 900	.26	10	10	800	Yew	185 00
6	8	6	1,200 to 1,800	.53	12	12	925	Yoke	240 00
8	10	8	2,000 to 3,000	1.40	14	14	1,000	Yon	375 00
10	12	10	3,000 to 4,000	1.90	18	16	1,800	Youth	500 00
12	14	12	4,000 to 5,000	2.30	18	16	2,200	Yule	600 00

Floor space required practically same as Standard Horizontal Pump.

We can furnish this type of pump in brass if required. Prices on application.

Please Note:—Brass Pumps have cases, runner, shaft, glands, stuffing-box and flanges brass. Stands, pulley and base are iron.



STANDARD HORIZONTAL PUMPS

Fitted with Tight and Loose Pulleys and Primer

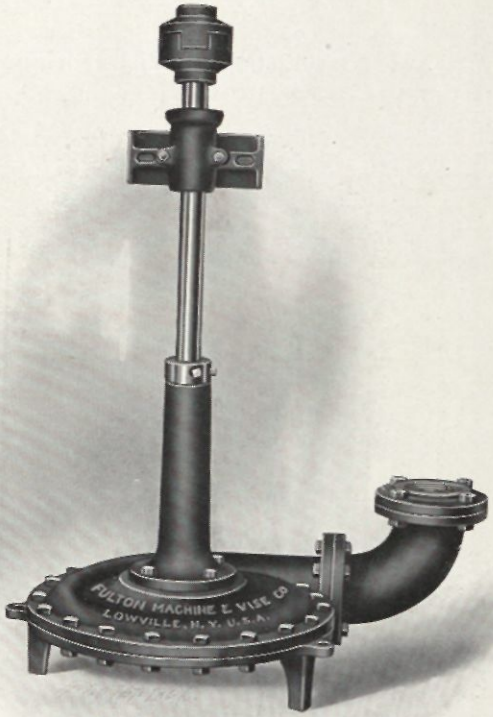
Pumps furnished tight and loose pulleys at a slight advance in price. Primers extra, see list.

Table of Speeds at which Standard Horizontal, Swing Case, Vertical and Motor Driven Pumps should run to raise water to different heights.

No.	10 ft.	12 ft.	16 ft.	20 ft.	25 ft.	35 ft.	40 ft.	50 ft.	60 ft.	70 ft.
1	1,200	1,250	1,350	1,500	1,700	1,900	2,000	2,200	2,400	2,600
1½	700	750	850	950	1,000	1,150	1,200	1,300	1,400	1,500
1¾	675	720	820	895	970	1,115	1,165	1,270	1,380	1,480
2	525	570	645	715	875	903	955	1,053	1,143	1,220
2½	470	520	595	670	715	870	935	1,005	1,095	1,155
3	420	445	495	545	645	845	910	985	1,065	1,135
4	345	395	445	495	595	795	885	915	989	1,015
5	325	375	425	459	545	745	855	895	955	1,000
6	235	295	355	415	485	575	605	645	695	740
8	220	245	305	355	385	445	470	495	540	580
10	215	240	280	315	355	410	430	460	510	540
12	200	225	260	290	320	375	290	425	475	500
15	170	190	225	250	290	340	350	380	425	460

If water is to be forced through long pipes or many elbows are used, speed should be increased to correspond. **Larger** size pipe and fittings will save power.

For elevations in excess of 60 feet pumps will be furnished extra heavy at slight additional cost.



STANDARD VERTICAL PUMP

Made Right or Left

For Sizes and Prices see next Page

This Pump should stand on bottom of well or cistern and it should be submerged. We furnish one box and coupling.

Table of speeds, see page 25.

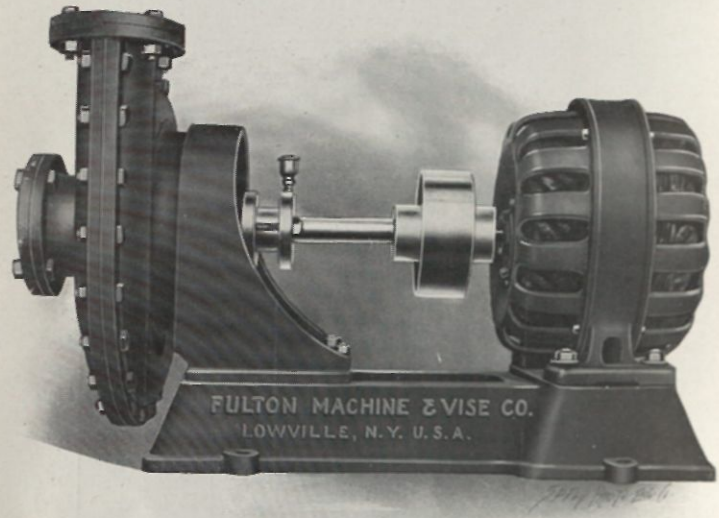
PRICE LIST

STANDARD VERTICAL PUMPS

No.	Suction	Discharge	Economical Capacity	Horse Power Required to lift 1 foot	Weight	Price Iron	Price Brass	Code Word Iron	Code Word Brass
1½	2	1½	75	.03	85	$30 00	$55 00	Ax	Gig
1¾	2	2	85	.04	110	45 00	70 00	And	Gat
2	2½	2	145	.05	120	60 00	110 00	Ann	Get
2½	3	2½	180	.09	150	70 00	135 00	Ace	Gem
3	4	3	250	.126	260	75 00	150 00	Alice	Geo
4	5	4	475	.27	370	110 00	240 00	All	Gaw
5	6	5	755	.05	400	140 00	315 00	Abe	Girl
6	8	6	1,200	.55	480	170 00	360 00	Ape	Gang
8	10	8	2,000	1.40	800	260 00	.....	Asa	.....
10	12	10	3,000	1.90	1,200	330 00	.....	Air	.....
12	14	12	4,000	2.45	1,600	420 00	.....	Axel	.....
15	18	15	8,000	4.35	3,500	600 00	.....	Arbor	.....

Extra lengths of shafts and extra boxes furnished when desired, for which an additional charge is made.

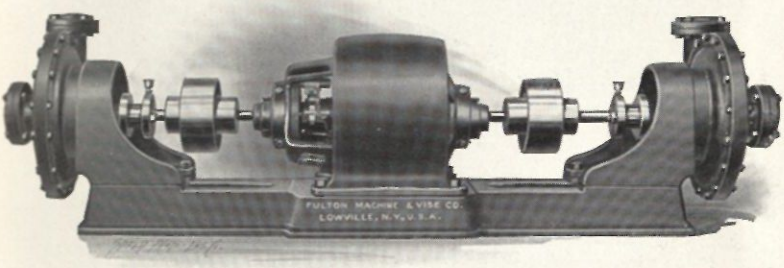
We can also furnish vertical motors for electric drives. Prices on application.



SWING CASE, MOTOR DRIVEN PUMP

Prices Quoted on Application

For gas or steam engine, or for motor connection. We will furnish pumps with or without engine or motor and shall be pleased to name prices on any special pumping outfit upon request.

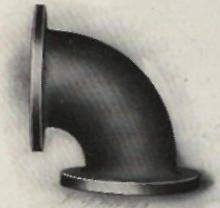


This pump, either motor or belt drive, made in any size. Used for pumping separate kinds of liquids, hot and cold water, or can be piped from one end to the other and used as a stage pump.

Prices for such outfits named on application.

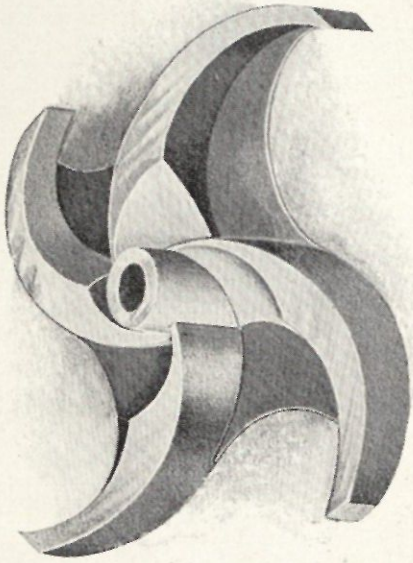
FOOT VALVE
AND STRAINER

No.	Iron Price	Brass Price
1½	5 00	$ 8 00
1¾	6 00	8 50
2	7 00	9 00
2½	8 00	12 00
3	9 00	15 00
4	12 00	21 00
5	15 00	26 00
6	20 00	30 00
8	30 00	40 00
10	40 00	50 00
12	50 00	65 00
15	75 00	110 00
18	110 00	140 00



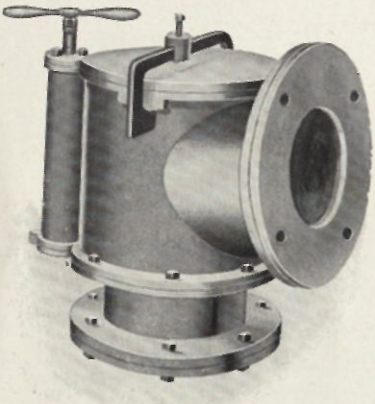
FLANGED LONG
RADIUS ELBOWS

Size	Price	Size	Price
1½	$ 5 00	5	$11 75
2	5 75	6	14 00
2½	6 25	8	23 75
3	7 00	10	36 00
4	9 25	12	50 00
		15	80 00



IMPELLER

Our impeller has web at back and will pump thick fluids as well as water.



PRICE LIST

2	inch	$15 00
2½	inch	20 00
3	inch	20 00
4	inch	25 00
5	inch	30 00
6	inch	40 00
8	inch	45 00
10	inch	65 00
12	inch	75 00

IMPROVED HAND PRIMER

Price List

STANDARD COMPANION FLANGES

1	inch	$ 1 25
1½	inch	1 35
1½	inch	1 40
2	inch	1 50
2½	inch	2 00
3	inch	2 25
4	inch	3 00
5	inch	$ 3 65
6	inch	4 00
8	inch	6 50
10	inch	9 25
12	inch	12 50
15	inch	21 00
18	inch	31 00

FRICTION AND POWER

TO find theoretical horse-power required to elevate water, multiply the gallons pumped per minute by the head in feet, and by 8.33 (weight of one gallon of water), and divide the product by 33,000. To this must be added a certain amount according to efficiency of pump; it is usual to double the theoretical power, which would be correct for 50 per cent. efficiency.

By "head" is meant the actual elevation in feet from surface of suction water to point of discharge, plus the friction head in suction and discharge pipes and elbows.

The following examples will show the importance of using large pipes in order to save power: A 6-inch pump delivers 1200 gallons per minute elevating 20 feet; combined length of suction and discharge pipe is 100 feet and of 6-inch pipe. Referring to table, it will be found that a velocity of 12 feet per second in 6-inch pipe is equal to 1200 gallons, or practically 1200. The corresponding friction head is for the 100 foot lengths of pipe 8.8 feet; therefore, the total head is 20 feet plus 8.8 feet, or 28.8 feet. Figuring power as above and allowing 50 per cent. efficiency, it will be found that power required to drive pump is 15.26 horse-power, and speed required is about 410 revolutions per minute.

If, instead of 6-inch pipe, 8-inch had been used, with same size pump, a velocity of less than 7 feet per second would be obtained in the pipe and corresponding friction head less than 2.38 feet, and therefore total head 22.38 feet instead of 28.8 feet. The power required is 11.86 horse-power as against 15.26, and speed of pump 360 revolutions per minute as against 410 as above, a saving in power of over 22 per cent.

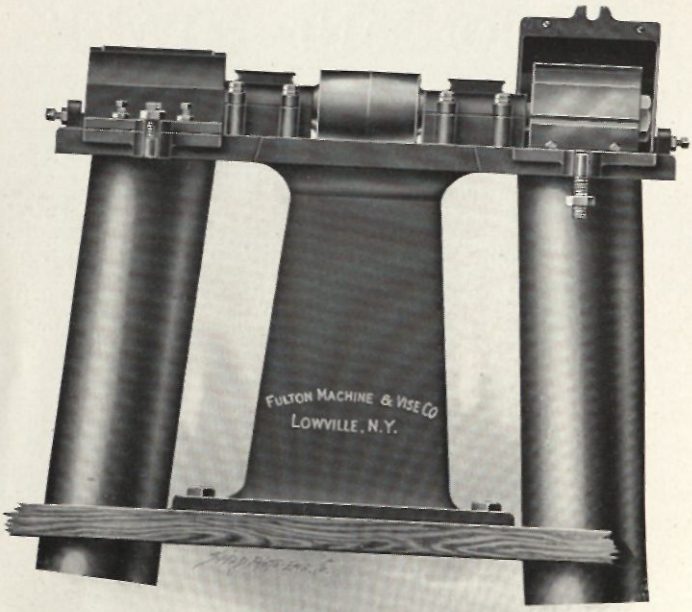
It is well to bear in mind that if above results as regards power and capacity are to be obtained the pump must be run at right speed; by running at higher speeds a larger quantity of water will be obtained, but at a sacrifice of power, due to reduced pump efficiency. It is therefore important, if economical work is wanted, that pumps should not be expected to deliver larger quantities of water than those given as the right capacity in the various tables of this catalogue.

When pumps are placed above water level it is necessary to prime them in starting. We recommend a flap valve on the discharge pipe or a foot valve on the end of the suction pipe.

We do not recommend that our customers attempt to draw water by suction over 25 feet. It costs more to draw water by suction than it does to force water above the pump.

To convert water pounds pressure into water feet elevation multiply by 2.31.

To convert water feet into pounds pressure multiply by .434.

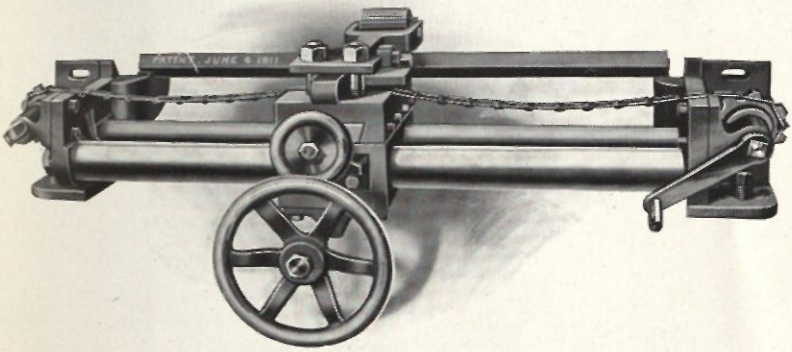


SLAB AND EDGING BARKER

This machine saves its cost many times at any place where spruce lumber is manufactured. Many mills are today burning or selling their slabs and edgings, and it is this part of the tree that makes the best pulp. It has a far better fiber for sulphite than the heart. Bark your edgings and slabs on our BARKER and sell them to the Sulphite Companies. These machines have two heads, each requiring an operator. The capacity of the machines is four cords per day, and the machines represent a very small outlay for the work accomplished. We can refer you to many mills that are using our Barkers. Write for further descriptions.

Price, $100.00.

Weight, 800 pounds



POTTER PULP STONE TRUING LATHE

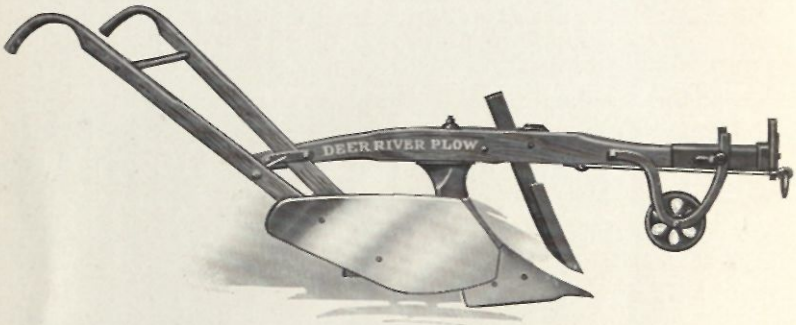
Patented

This lathe is very rigid and keeps the stone sharp and true, thereby saving sliver waste and time, and the life of the stone is increased. It increases production by a large per cent. and feeds automatically.

We shall be pleased to furnish any information on this tool or refer to satisfied users.

Bearings bronzed bushed.

Price $100.00.



DEER RIVER PLOW

This plow has been manufactured for over thirty years. It has stood the test and made for itself a reputation of being the best walking plow ever made.

Other plows have been brought out and exploited but any farmer that has ever used the Deer River Plow cannot be induced to accept other makes.

Heavy red birch beams, with natural wood finish, no paint to cover defective timber, heavy cast steel moldboards, with soft center, tempered and polished, oak handles, cast steel coulter and the BEST materials throughout.

PRICE LIST

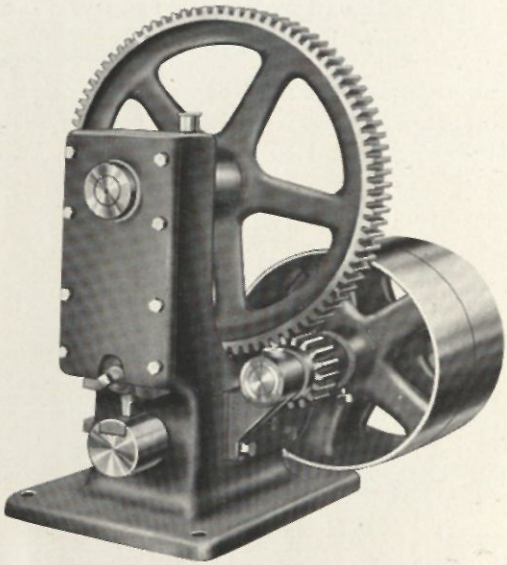
No. 1 Deer River Plow, 2 horse, cast steel M. B., cast L. S., $13 50
No. 1 Deer River Plow, 2 horse, cast steel M. B., steel L. S., 14 00
No. 2 Deer River Plow, 1 horse, cast steel M. B., cast L. S., 13.00
No. 2 Deer River Plow, 1 horse, cast steel M. B., steel L. S., 13.50

Extras next page.

PRICE LIST

EXTRAS "DEER RIVER" PLOW

Standard	$2.75
Mould Board, (Steel No. 1 and 2)	4.00
Cast Landside	1.00
Steel Landside	1.00
Landside Shoe	.50
Coulter, (Cast Steel)	1.00
Coulter Clasp	.35
Draft Rod and Ring	.75
Clevis Hook with Bolt	.25
Patent Clevis	.18
Beam Cap	.15
Cog End	.15
Wheel	.35
Wheel and Wrought Arms	1.00
Handle Rods	.15
Handle Rounds	.15
Wheel Arm Clasps	.35
Beam	2.50
Beam Handle	.60
M. B. Handle	.75
Grape Vine Rod	.50
Joint Bolt	.10
Plow Bolts	.05
Wrench	.15
King Bolt	.25
Spreading Rod	.25
Common Points, No. 1 and 2	.50
Wide Points, No. 1 only	.60
Coulter Points, No. 1 only	.75
Handle Plates	.15
Clevis Iron and Wrench Cut No. 16	.75



CORE PUNCH

This machine is used for punching slots either 5/8-inch or 3/4-inch wide in the end of pipe used by paper mill manufacturers for cores on which to wind paper.

Tight and loose pulleys, 12 inch diameter, 4 inch face.

Price $100.00.

WE have a first-class foundry, pattern and machine shop. We will contract to furnish any special machines or castings, either iron or brass.

Inquiries solicited and estimates cheerfully furnished

Designed and Made by
The Teller-Hurst Engraving Co.
The Mason-Henry Press
Associated
Syracuse and New York